Chapter One

Reconciling self interest and the public good

In a world populated by more than six and a half billion people and with finite resources, the provision of public goods seems to be on a permanent collision course with the pursuit of individual interests.

It's a conflict that has been pondered by philosophers since humans first began living in groups, but increasing population pressure and a new sense of environmental fragility seem to be exacerbating the issue in the twenty first century. Dubbed "The tragedy of the commons " by Garrett Hardin, the conflict occurs in relation to a shared, finite resource and the problem that arises when an individual is presented with a choice between personal gain or one that benefits all. According to popular thought, the course of action resulting in personal gain will win out almost every time.

The classic parable used by Hardin, and before him, by nineteenth century writer William Forster Lloyd, describes the problem by considering an English village common as the finite resource. Used by herders as pasture for their flock, the common has a fixed capacity to support *x* number of animals beyond which overgrazing occurs and the pasture will become degraded and unable to support the flock. If individual herders wish to maximise their personal benefit from the common they will need to add to their flock before the other herders take up the commons' spare carrying capacity. However if each herder follows this path of self interest, too many animals will be added to the commons resulting in overgrazing, ruining the opportunity for all.

Hardin concludes, "Therein is the tragedy. Each man is locked into a system that compels him to increase his herd without limit - in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own interest in a society that believes in the freedom of the commons."

To bring the parable into modern terminology, simply substitute the phrase "public good" for "the commons". Public Goods are items or services that share two main characteristics: non-excludability, meaning that if the good is available to one, it is equally available to all; and non-rivalry, such that consumption by one entity does not reduce the capacity for another to consume it or benefit from it. A good example is the air we breathe. It remains freely available to all and regardless of how much air one person consumes it in no way impinges on the availability of air for others. Other often-quoted examples include the defence of a nation, traffic lights and street lighting, and the content of copyright. Global Public Goods, as the phrase suggest are Public Goods that are not confined by national boundaries, such as peace and health.

The question of the Tragedy of the Commons remains as relevant today as it was in the 1800s and it has become a matter of particular concern to governments around the world. It poses a problem that stymies the provision of any public good. Consider these modern day examples.

Carbon emissions are causing major environmental problems. Even with full knowledge of the issue businesses are increasing their use of fossil fuels and many urban dwellers persist in purchasing large, fuel-hungry vehicles rather than opting for public transport. The finite public good– our quality of atmosphere – is degraded due to individual and business desire for short term personal advantage.

Water provides another example. Over the past decade much of Australia has experienced severe drought resulting in the introduction of water restrictions in most capital cities. Yet throughout this period total water use continued to exceed sustainable levels. Other examples can be seen in the depletion of ocean fish stocks through overfishing; and forestry, land clearing and agricultural practices that result in erosion and soil salinity.

These resources are all freely available yet finite in quantity. Plus they are all public goods that fall within the scope of government management and administration. To date this has largely occurred in one of two ways:

1. Regulating the use of the resource in question; and

2. Creating and allocating "rights" to the resource.

One of the most common economic means of regulating a public good is through the imposition of taxes or levies. Pigovian taxes for example, are used by governments to help rectify the negative attributes – or negative externalities - of an activity. Therefore to alleviate the problems of air pollution, a government could impose a Pigovian tax on those who create and contribute to the pollution problem. Regardless of what the regulations are or how they are imposed, this approach is ultimately one of coercion.

The second approach, dividing up the commons into property rights, can be viewed as the "selfish" alternative. It attempts to preserve the integrity of the commons by restricting access to the resource so that it will not be entirely depleted. In addition it offers a limited group of individuals the opportunity for personal gain if they manage the resource correctly. The method is frequently used in relation to fishing – where limits are placed on the quantities or types of fish allowed to be caught; and in land clearing, where quotas are set specifying how much land may be cleared annually. It is also being adapted to non-traditional solutions through activities such as emissions trading.

Arguments for either approach paint a bleak picture. A major problem with systems that create rights is the difficulty of defining those rights, especially given by definition, rights to a public good are rights to something that is already freely available. The difficulty is compounded by the impossibility of the task. Because

rights trading depends to a large extent on the accuracy of the measurement then its effectiveness will depend on how well it is done. In the case of a fishing trawler, how accurate is the tally of fish really going to be? Once the net has been cast is it possible to limit the catch to the exact quantity and type of species allotted to the trawler?

Moreover, an appeal to selfish interests works only if enough people share the same interest. In other words expecting people to cooperate based on financial gain works only if everyone is motivated by financial gain. It has been debated that in modern culture people are largely no longer motivated by shared interests, but instead choose actions based on values. Asking people to adapt or change their behaviour to accommodate potentially diametrically opposed values is a request that goes against one's culture and it rarely works.

Coercion as a force for remedying the tragedy of the commons is equally limited in its effectiveness. Coercion requires the cooperation of the public, as few modern societies are able to enforce regulations in the face of sustained rebellion. And to gain the cooperation of the public requires general acceptance of the basic values behind the regulation, or a common values system. In today's pluralistic and fragmented societies, such a values system is increasingly unlikely to be found.

As long as we remain locked in to these two approaches – regulation or rights – we will continue to grapple with public goods as neither way can be successful in the long term. The result is the decay of the common good and it is the natural outcome of a competitive mindset.

This book describes a third way that any organisation – federal, state or local government, community association or charity – can address the problem of the provision and protection of public goods. Adopting the principles of humanism, it resolves the "Tragedy of the Commons", achieving sustainability by making cooperation in the best interests of all. Above all, it resolves the issue both equitably and democratically.

The Macquarie Dictionary defines "humanism" thus: " any system or mode of thought or action in which human interests predominate." In adopting a humanist approach to public goods provision, our primary aim is to remove the divide between private and public benefit, creating a system that works for the good of all at the same times as offering individual incentive and reward.

Demanding benefits to multiple parties does increase complexity, creating new relationships within the system along with a need to somehow predict and manage the results of those interactions. It requires what is known as an "adaptive system", one that is never static, modifying its behaviour in order to adjust to the changes going on around it. Such a system can be seen in the behaviour of a termite colony. Remarkably organised though the colony may be, there is no overall guiding hand determining how the system should operate. Each ant obeys relatively simple rules that govern its behaviour, reacting to its immediate stimuli and its interactions with

other ants. The termite colony behaviour is an emergent property of the sum of the individual interactions.

Human society is much the same except we have the advantage of being able to change the rules under which we individually act. Over the past 5,000 years humans have evolved an amazing society yet it was not planned in the sense of planning a building. Humans have not become more intelligent in the sense of an increase in innate ability, yet we have created the modern world. This world has happened because we have been able to communicate and because we have worked out the economic system called trading that enables individuals to specialise and so become more productive.

The global economy is also an adaptive system. Its behaviour changes over time in reaction to the impact of humans. How each individual behaves within this economic system is determined by the actions of others and by the accepted rules governing behaviour. The rules that we have agreed to abide by and that govern trade are fundamentally simple. They include honouring our commitments associated with the trade, the method we will use to measure the trade (money), and agreement that what we are trading is what we both understand it to be.

All adaptive systems require a purpose. In most economic systems this is to increase the wealth of communities. It is measured by the monetary value of the output of goods and services. The system is built on the idea that each entity within the system is attempting to increase its own wealth.

This system has been the driving force behind economic development. We cannot understand nor predict exactly what will arise from it but we do observe that it works and it increases our wealth. We can also estimate what will happen if it continues. In the case of the generation of energy we know that if we continue to produce energy by burning fossil fuels we will radically change the environment under which we live – almost certainly for the worse.

If, instead of using exactly the same economic system, we changed some of the rules under which we trade it may be possible to alter the outcome of the system in ways that are more benign. It becomes possible to build economic subsystems with goals other than but also including wealth generation.

Emissions trading is an example of this kind of tinkering. We have invented the concept of a right to create emissions and have allocated this right to different people. Now we need to reduce the number of rights to emit until we get the desired result. Unfortunately as outlined earlier, this is extraordinarily difficult to do and it is unlikely to achieve the result we want in the time needed to do it.

A humanist approach suggests another set of simple changes to the trading system that is more likely to succeed because it involves modifications that fit with human psychology. As a species we appear to have an inbuilt sense of fairness. That is, when we trade we understand that a trade is more likely to succeed for both of us

in the long term if trades are "fair". Hence in trying to work out how we can reduce greenhouse gases we can change the rules of trade to favour the production of non-polluting sources of energy in a way that is equitable.

This can be done in the following way. People who generate greenhouse gases could pay extra for the privilege. The extra money can now be used as a reward and given to those who through their behaviour generate fewer greenhouse gases. One of the rules applied to this money however, is that the rewards must be used to invest in ways of reducing greenhouse gases. It's an approach that is not all that different to existing frequent flyer and frequent buyer marketing models. The person supporting the desired behaviour is rewarded. The difference is that those contributing to the problem (or using the resource) provide the funding to reinvest in alleviating the problem.

People will understand that these rules are fair and so they will be prepared to abide by them The rules can be enforced through inventing a special currency to record the results of these trades and through excluding people who do not obey the rules. The system is guaranteed to reduce greenhouse gas emissions because it has set in process a system that has a positive feedback loop that people will abide by. It will not cause any economic dislocation.

We call this approach Rewards. Rewards are an economic subsystem created through the invention of a new currency that enables us to measure the variable we wish to change. In the case of Energy Rewards the goal is to reduce greenhouse gas concentration. In systems terminology we create a new economic system defined by a new currency – Energy Rewards. The objective that the system has is to reduce greenhouse gas emissions for minimum cost. The rules of the system are the rules we put on the creation and use of the currency, all of which are designed to achieve the overall goal. The system is adaptive because it has rules that can be varied. Examples are: who gets Rewards, who pays for Rewards and where are the Rewards spent. From our previous experience with adaptive systems we can be assured that this system will achieve its objective of reducing greenhouse gases in the atmosphere and we can also be assured that the cost will be close to the minimum possible.

We can solve the problem of the commons by building targeted economic systems that address new goals and which can be measured on criteria that is more inclusive than wealth generation.